

(i) Printed Pages : 2

Roll No.

(ii) Questions : 9

Sub. Code :

0	3	5	5
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Exam. Code :

0	0	0	4
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B.A./B.Sc. (General) 4th Semester

(2053)

ZOOLOGY

Paper : I Biodiversity (Chordates) and Evolution-II (ZOO-401)

Time Allowed : Three Hours]

[Maximum Marks : 36

Note :— (i) Attempt *five* questions in all, selecting at least *one* question from each unit.

(ii) Question No. I is compulsory.

(iii) Draw well labeled diagrams wherever required.

I. Define the following :—

- (a) Cloaca
- (b) Jacobson's organ
- (c) Rhamphotheca
- (d) Pericardium
- (e) Heterodont Teeth
- (f) Loop of Henle
- (g) Mold fossils
- (h) Carbon-14 dating.

1×8

UNIT—I

- II. Describe the structure and working of heart of *Uromastix*. 7
- III. (a) Classify up to order and write a brief ecological note on the following :
- (i) *Calotes*
 - (ii) *Naja*. 2.5×2=5
- (b) Give any two differences between poisonous and non-poisonous snakes. 2

UNIT—II

- IV. Draw well labelled diagrams of the following in *Columba* :
- (a) Respiratory tract and organs
 - (b) Female Urinogenital system. 4,3
- V. Discuss flight adaptations in birds. 7

UNIT—III

- VI. Describe the structure of brain of rat. 7
- VII. (a) Classify up to order and write a brief ecological note on the following :
- (i) *Ornithorhynchus*
 - (ii) *Funambulus*. 2.5×2=5
- (b) Write a short note on larynx of rat. 2

UNIT—IV

- VIII. Discuss Biological species concept in detail. 7
- IX. Write short notes on the following :—
- (a) *Homo sapiens neanderthalensis*
 - (b) Megaevolution. 3.5×2=7